

Preceptor Tips



Ask yourself or any student what was the best part of their dietetics education? More than likely the answer will be, “**My internship rotations!**” And we all know, that without preceptors, there would be no supervised practice programs to prepare the next generation of dietitians.

Importance of Teaching by Preceptors

The Academy of Nutrition and Dietetics has affirmed the three-pronged approach to training dietetic professionals:

1. Didactic knowledge
2. Supervised practice, and
3. Examination

The need for supervised practice experience in the training of dietetic professionals cannot be replaced by didactic training, (book knowledge can’t replace experiential learning) nor can it adequately be “tested” by current examination techniques (the registration exam cannot evaluate skills). The supervised practice experience is important in preparing students and in giving them the skills they need to be entry-level practitioners. The preceptor’s role is critical in preparing students to function effectively as dietitians and instilling the value of life-long learning.

Most supervised practice programs (dietetic internships) rely heavily on preceptors to train and evaluate students in clinical, management and public health nutrition facilities. Preceptors may not always feel prepared for their role in educating and evaluating students. Most preceptors were educated to become nutrition and health care professionals. The skills for teaching and evaluating student interns were not likely to have been part of the curriculum.

Roles and Responsibilities of a Preceptor

A preceptor’s roles include:

- Primary orienteer
- Staff role model
- Educator
- Resource
- Consultant

Responsibilities of the preceptor include:

- Displaying excellence in the staff role by demonstrating clinical proficiency
- Providing and directing learning experiences
- Creating and maintaining learning atmosphere
- Demonstrating knowledge of objectives and materials
- Demonstrating knowledge of policies, procedures, rules, and regulations
- Assisting the preceptee in setting long and short term goals
- Planning assignments based on the learning needs of the preceptee
- Communicating learning plans, evaluations, and concerns
- Facilitating the preceptee’s socialization and culturalization into the work environment

In these times of staffing shortages, fiscal constraints, and the nearly constant need to "do more with less," you are probably asking yourself "how will being a preceptor to a dietetic intern benefit me and/or my facility?" Interns typically 'give back' to their preceptors and supervised practice facilities by:

1. Developing and conducting in-services education programs or quality improvement activities which you may be having difficulty completing during your usual schedule
2. Developing and conducting education programs for patients, clients, other professionals and the community
3. Students can assist with journal clubs to help update staff on the latest information in dietetic practice.
4. Students can help give better supervision of employees. They can act as an extension of the dietitian rather than as someone else to supervise.
5. Researching and presenting information on the latest care principles, medications, and/or studies
6. Students increase your learning since they bring new knowledge and perspectives to your institution.
7. Students can help define what you do. Their questions and your explanations often result in clearer ways of doing things and break the routine of day-to-day practice. They challenge the preceptor!
8. Developing patient, client, and/or employee educational materials
9. Gathering, analyzing, and reporting performance improvement data
10. Developing and hosting National Nutrition Month 'health fairs' and other activities to promote nutrition, food safety, and wellness
11. Completing a wide array of creative projects, audits, data gathering activities
12. Providing staff relief in both clinical and management areas
13. Students can help employee morale. Staff members who play a role in teaching students will feel more important and valued.
14. Perhaps the most valued reward a preceptor receives is the satisfaction and feelings of accomplishment that come with positively influencing an intern's transformation into a capable entry-level dietitian. Think about how great it will be when an intern you helped prepare calls you to share good news - **"I'm a Registered Dietitian!"**

Trends and Direction of Dietetic Education

Let's discuss some information about what is happening with and where we may be going in dietetics education to serve as a foundation for the training today.

This background information will help to focus on why the preceptor and supervised practice is important in training future dietitians.

Dietetics education is a comprehensive process that bridges the gap between theory and practice. All dietetics education programs are designed to reflect the needs of students, prepare them for current practice, and ready them for lifelong learning.

Dietetics education programs must provide a variety of opportunities, including practical experience, for students to gain the essential knowledge, skills, and competencies to prepare them for a multitude of career options in the field of dietetics.

The Accreditation Council for Education in Nutrition and Dietetics (ACEND) accredits the Dietetic Internship (DI). ACEND exists to serve the public by establishing and enforcing Eligibility Requirements and Accreditation Standards that ensure the quality and continued improvement of nutrition/dietetics education programs as it accredits programs.

The Dietetics Education and the Needs for the Future report from the House of Delegates, reports on trends and future direction. Some of the findings and recommendations include:

- The healthcare workforce represent 9% of America's labor force, making healthcare the largest industry in the USA. Forty percent of healthcare workers are in hospitals.
- The growth for new opportunities is great for the dietetics profession with non-traditional settings and preventive services showing greater potential, such as clinical nutrition will move out of the hospital into community, especially retirement communities; more dietetics professionals will work in neonatal intensive care units; there will be MNT clinics; more home care services; freelancing with private client bases; and opportunities in corporate America.
- State regulation of dietetics and scope of practice issues may have a significant influence on the future of the profession and entry-level education. Forty-six states have laws governing the practice of dietetics as licensure, certification, or registration. Issues confronting scope of practice and definitions of qualified food and nutrition professionals may strain the profession in the near and long term.
- Other health professionals have faced the issue of the future of entry-level education and have chosen to increase entry-level education standards. For example, physical therapy, occupational therapy, and pharmacy require advanced degrees for entry-level practice.

Supervised Practice

The supervised practice experience is designed to focus on practitioner competencies. These competencies build on foundation knowledge and skills and specify what every practitioner should be able to perform at the beginning of his or her career.

Practice is what you do (preceptors) on a day-to-day basis. The intent is to give students the necessary skills so that they could, if necessary, do your job. Students should not be expected to perform your job at the same level as you, but students should be able to do the job satisfactorily (i.e. students should be trained well enough to have at least entry level competence by the end of their supervised practice experience rotations). Special projects are acceptable and often desirable as long as they teach the skills and experiences that would be ordinarily used by you in your work.

It is desirable for students to reach a level of competence by the end of their rotations so that they could provide staff relief if needed. When students are allowed to substitute for you, it gives them a valuable opportunity to practice as a professional while they still have a safety net. It teaches them to manage their time and prioritize duties; it gives them confidence in their professional abilities.

There are two key points to remember when allowing student to provide staff relief:

1. In the beginning of the rotation, students should cover only a few of your responsibilities. As the weeks progress, more tasks can be added. This process gives students a chance to try their wings without undue time restraints in the early stages of the rotation and then gradually incorporates the need for time management.
2. Continue to supervise students doing staff relief so that it remains a learning experience for them while insuring that quality services are maintained. At first, it takes extra time to train students, but the idea of the training is to develop students' skills so that they can substitute for you. This will give you time to focus on duties that may have been neglected.

Irby's Seven Dimensions of Effective Teaching

This is a summary of a review by David M. Irby on clinical and classroom teacher effectiveness. Students regard the seven basic components of teaching positively. The first four components are common to the classroom and the last three more directly relate to professional practice. They all interrelate.

1. Organization and Clarity

Effective classroom and professional practice teaching is based on the ability to present information clearly and in an organized manner.

Clear and organized presentation of ideas is consistently identified as a characteristic of the best teachers.

Students indicate that effective teachers:

- Present material in a clear and organized manner
- State objectives
- Summarize main points
- Provide emphasis

2. Enthusiasm

Preceptors, who are dynamic, energetic, and enthusiastic about their topic, stimulate student interest and learning. Teachers with these characteristics are consistently rated highly by students. Enthusiastic teachers use vocal inflection, humor and movement, and are generally characterized as having charisma. Not all of us fit that mold. But it is critical that preceptors communicate their enthusiasm. This is incredibly important. Find ways to share your enthusiasm with your students. Tell students why you like your job and why you enjoy being a dietitian. Let your students know that you enjoy working with

and supervising them; that you enjoy helping them acquire new knowledge. Enthusiasm is infectious and influences students dramatically. It increases their appreciation for dietetics and keeps morale high as well as stimulates learning.

3. Instructor Knowledge

Instructors who are knowledgeable, up-to-date in their specialty, demonstrate logical thinking for students, and relate theory to practice are perceived to be excellent teachers. Students love to relate theory to practice. Students also appreciate being exposed to preceptors' knowledge. Preceptors may work in specialty areas that students have only touched on in their education. Exposure to tricks of the trade and the unique skills of preceptors are especially beneficial.

4. Group Instructional Skills

Class participation is stimulated when students sense a climate of respect and sensitivity to their responses. Teachers and preceptors are most effective when they foster this kind of rapport.

5. Professional Practice

The major role of preceptors is professional practice supervision (which includes teaching). Students are assigned to work with experienced professionals to help them master skills and abilities. Teaching behaviors that are effective include:

- Being accessible, approachable and willing to help when needed
- Observing and giving feedback on student performance - keeping students apprised of progress, identifying strengths, and guiding development
- Pacing students, providing practice opportunities, and promoting problem solving skill development
- Giving case specific comments like relating theory and basic science to the case
- Offering professional support and encouragement because students need encouragement and support. Professional support helps provide conditions for students to learn and develop professionally. The focus is kept on client-centered care rather than on students' inexperience.

6. Instructor and Professional Practice Competence

The instructor must not only be knowledgeable but must also be professionally competent. Examples of specific skills include:

- Objectively identifies and analyzes patient, management, or community nutrition problems
- Effectively performs procedures
- Establishes rapport with patients or employees
- Works effectively with health care team members

7. Modeling Professional Characteristics

Throughout the entire length of practice experience training, students observe experienced staff members making decisions, interacting with patients, and communicating with others. These observations allow students to learn through imitation. Modeling by preceptors is a very powerful teaching technique. Students learn to approach

professional practice in the way their mentors model. Certainly, it is very important that preceptors demonstrate high professional standards.

Some identified professional behaviors that reflect professional standards include:

- accepting responsibility
- self-evaluation; acknowledging "I'm not perfect"
- being honest with data and one's own limitations
- displaying self-confidence and demonstrating skills, attitudes and values to be developed by students
- not appearing arrogant
- showing respect for others
- lifelong learning

What makes an effective preceptor?

The following have been identified by preceptors:

- Demonstrates respect for the learner
- Appreciates and considers what the learner already knows
- Challenges the learner to "think"
- Emphasizes the practical
- Provides opportunities to practice and grow
- Makes learning enjoyable

While students are taught knowledge and reasoning skills in school, it is in the practice setting that students truly learn to apply their knowledge. Preceptor teaching is really teaching at its finest.

Teaching in work settings consists of helping students learn how to collect data, interpret and synthesize findings, formulate alternative management plans and evaluate the effect of the action taken.

In other words, you are helping students develop analytical skills. **Whenever possible, preceptors should create an environment in which students are expected to solve problems and receive feedback for their efforts.**

Allow students to make mistakes without having to fear reprisal. Students learn by making mistakes; they flourish best in an environment that supports their learning in a way that helps them synthesize and apply the enormous amount of textbook knowledge previously learned. Using the "sandwich" approach to providing feedback is beneficial. Start and end with a positive. It is best to be straightforward with areas that could use improvement.

Modeling Professional Characteristics

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Some identified professional behaviors that reflect professional standards include:

- Accepting responsibility
- Accomplishing meaningful self-evaluation; acknowledging “I’m not perfect”
- Being honest with data and one’s own limitations
- Displaying self-confidence and demonstrating skills, attitudes and values to be developed by students
- Not appearing arrogant, but appearing humble and being willing to learn
- Demonstrating respect for other
- Committing to lifelong learning

Practicing all seven components does not guarantee that all students will succeed. Cause and effect have not been demonstrated. As learners, students play a major role in their achievements and success.

Positive Characteristics of Preceptors

Present a positive attitude and commitment toward the profession by:

- Participating in local nutrition organizations and continuing education
- Using appropriate professional language
- Demonstrating professional ethics in regard to patient care (or mgmt decisions)
- Showing respect for individual differences among patients or employees
- Showing enthusiasm and patience
- Creating an atmosphere for open communication
- Viewing students in a positive light—emphasize what students know and do correctly
- Supporting students with appropriate, frequent feedback in a timely fashion
- Using specifics with respect to praise or changes that need to occur
- Allowing students to be creative while still meeting expectations and performing professionally.
- Challenging students to perform by giving them increasing responsibility
- Remembering students are preparing for entry level
- Showing respect for students and their work

Characteristics of Students

Students vary in their cultural backgrounds, skills, knowledge, level of maturity, strengths, and weaknesses, etc. These differences dictate different needs among students:

- Intelligent people with lots of book knowledge
- Enthusiastic
- Have different modes of learning: some are adult learners, some are not
- Limited experience with client/patient contact
- Limited management and foodservice experience
- Limited communication skills (staff, clients, groups and writing)

- Limited team skills. As students, they usually have been in a competitive situation with other students
- Untested work ethic
- May not know how to prioritize work or manage time
- Unsure of their abilities
- Idealistic. Often, they do not understand limitations imposed by reality

Master's or doctoral degree students entering practice settings are not necessarily more prepared or advanced in their clinical/administrative skill level than are bachelor's degree students.

The Road to Entry-level

"Entry-level" is a term often used to describe students who are nearing the completion of their formal education and entering the work force. Entry-level competency is not expected until the **completion** of the supervised practice component.

Competency is the midpoint on a continuum of professional growth that normally extends over a given period of time, typically 10-12 years. Competency is the ability to carry out a specific task within parameters of control.

What Preceptors Teach:

Role Modeling

Look at your own image of what your professional role is AND what it should be. Practice those tasks that provide that image.

Need to Know

Separate the nice-to-know from the need-to-know tasks. The need-to-know tasks take priority and MUST be taught to students. The nice-to-know, which can also contribute important skills, can be taught later if time is available.

Competency Skills

Students learn competency skills from their preceptors.

Before You Start Working with the Interns:

1. Solicit pertinent information from the interns:
 - Existing knowledge and previous experiences
 - Expectations and goals
 - Ability to make contributions
2. Provide a clear orientation (to the facility, the unit, etc.)
3. Establish ground rules – dress code, timing, reporting, assignments, emergencies, etc.
4. Be purposeful and focused when communicating with interns
5. Explain the culture(s) of this facility, its employees, and clientele
6. Explain what is expected of interns including expectations with regard to knowledge, skills, and attitudes

DR FIRM

D: demonstration, presentation, problem solving

During an orientation period, you let students observe, then walk them through the steps, and show them the shortcuts. During this time, you explain the rationale for the various steps and the assumptions behind the shortcuts.

R: rehearsal of content

Help students role-play your job. For example, you may want to have a student calculate a diabetic meal plan or give a diet instruction to you. The only way to know if the student has achieved the skills needed is for you to observe the student directly so you can evaluate the student's performance.

F: feedback and correction

Feedback to students about their skills communicates your empathy and approval or disapproval. At this point feedback should be open, corrective and specific. It is important for students to feel comfortable about having made mistakes during rehearsal. At this time, preceptors can give additional hints (e.g., hints for shortcuts, thoroughness, etc.). You need to be specific. Quiz students on what patients or staff may ask (open-ended questions). For example, ask students how they assessed patient understanding after a diet instruction.

I: independent practice.

This is the time for you to "let go". Students should ask you questions as needed. You can place a time deadline for specific tasks and shorten the deadline as the student's progress. You may want to take the "sink or swim" approach for some of the smaller tasks and have students report back. Be creative. Make it fun for yourself as well as for the students.

R: review

Ask students to demonstrate their assigned tasks. Do not assume anything. Mention strengths and weaknesses. You may have to demonstrate again the learned shortcuts, etc. Have students rehearse again, if needed.

M: motivate to persevere

Tell students how their good work makes a difference. Suggest that students relate it to something that they feel is important (e.g., because of their screening, tube feeding was initiated, etc.). Make specific comments, not general ones. Help the intern to learn:

- How to collect data
- How to interpret and synthesize findings
- How to formulate alternative management plans
- How to evaluate the effect of action taken

Student Evaluation

Evaluation is performed to help students modify their skills and behaviors. It is part of the learning process and can help build the students' confidence.

Evaluations should be positive, constructive and timely. Evaluation should be based on the clear expectations and criteria that were established at the beginning of the rotation or

activity. Also, by delaying or ignoring evaluation of problem performance can lead students to believe their work is okay.

The evaluation process should allow two-way communication between you, the preceptor, and the student/intern. Remember that what is obvious to you as a seasoned professional is often not obvious to a student. Preceptors need to listen to students and allow them to ask questions and make suggestions. Students may fail at performance because expectations were not clearly defined, assumptions were made without student's knowledge of them, or because students had not observed a previous example.

Evaluation should occur in two ways during the intern's rotations – process evaluation and product/outcome evaluation.

Process evaluation is continuous throughout the rotation. It may be done informally. Product or outcome evaluation may be the most difficult type of evaluation. Final evaluation at the end of a project or rotation can be used to build student's confidence, to reinforce desirable performance, or to inform students about behaviors that need to be changed in the future. It is also used by the program director to evaluate future experience needs of the intern to successfully complete their program. Realistically, final evaluation may also be used to prevent unqualified students from progressing beyond their skill and knowledge level.

Handling Difficult Situations with Students

Difficult situations may be the result of:

- Inadequate knowledge prior to the rotation
- Skill deficiencies (e.g., inability to translate theories learned to the treatment of patients)
- Personality difficulties (manifested by poor interpersonal relationships or power struggles)
- Situation difficulties (e.g., a student has had a parent die of cancer recently and now cannot cope working with cancer patients. Or the discomfort many a student may feel in a dialysis unit for the first time).

How Can Problems With Students Be Resolved?

For knowledge deficiencies, students can be given extra reading to do outside of the rotation. It is helpful to provide sources for students.

For situational difficulties, preceptors should talk to students about feelings that make them apprehensive or hesitant. Rotations may be adapted as long as the intern receives the necessary competencies. Discussing the problem with the Internship Director would be helpful.

While it may be uncomfortable to confront a student with a problem, it is less painful and more productive to do it in the beginning. Bad habits are easily reinforced through repetition—so it is important to correct them as early as possible:

- Students need to know the consequences of their actions or deficiencies. This could be with respect to the outcome for a patient, department, or staff. Or this could be with respect to students' progress in the program.
- Rules and expectations need to be communicated clearly (sometimes in writing)
- Expectations need to be realistic for students
- Try to find the positive in students on which to build improvement

The following are important points to help make your life easier when supervising/teaching interns:

- Interns want to be in the program. This is their dream, goal, and career.
- Interns, even those with considerable life and work experience, have a great deal to learn. In the beginning, of each new experience, talk with them about what you are doing and why you are doing it.
- Interns learn best by doing. The more hands-on experiences, the better. They need your guidance and constructive suggestions as they learn and begin to apply theory to practice.
- The goal is for interns to develop the knowledge and skills expected of an entry-level dietitian. They will develop specialized knowledge and skills as they progress in their careers.
- Preceptors should identify and recognize intern strengths and weaknesses at the beginning of the internship and periodically thereafter. It is important for both the intern and the preceptor to have realistic expectations.

More important points to help make your life easier when supervising/teaching interns:

- Address issues and concerns early, fully, frequently and honestly.
- Encourage and support your intern's development of independence yet always require accountability.
- An intern's desire to learn and positive attitude are as important as innate intelligence or ability.
- Interns will make mistakes in their internship. Help them learn from them. This is their training ground for the real world.
- Be upbeat, positive, supportive and caring. It goes a long way.
- Communicate expectations and rules clearly, early and frequently.
- Communicate with the course instructor and/or program director anytime you think it appropriate.

The following are some examples of situations that may occur during the internship that may require a preceptor to use coaching and counseling skills. Suggestions for strategies to help resolve these, are provided.

Situations	Suggested Resolution Strategies
Intern has difficulty with organization, time management.	Ask them to purchase a daily planner and/or large calendar for the program year where they can note rotations, due dates, schedule, and other important information. Provide them with a detailed weekly or daily schedule, if possible. Schedule daily or weekly meetings to track progress.
Intern has basic skill or knowledge deficit coming into the internship.	Help them identify the specific deficit. Suggest resources or additional activities to improve skill or knowledge (ex additional readings, role playing.) Intern should help develop action plan to improve deficit.
Intern has difficulty learning a new skill.	Provide safe learning experiences to practice skill. Role playing may help. Give specific feedback on weak areas. Intern should practice skill while in other experiences, if appropriate. Adapt learning experience to intern skill level, if possible.
Intern is too dependent, wants close supervision.	Encourage them to identify reason for dependence. Give them small, safe tasks to perform at first to increase confidence. Give positive feedback and encouragement. Schedule specific times during the day to meet with them for discussion and feedback.
Intern has personality conflict with a staff member(s).	Identify root cause. Be honest and specific when addressing conflict. Focus on behavior, not the person. Give examples of alternative behaviors. Reinforce positive behaviors.
Intern is stressed out, overwhelmed	Suggest they pursue a stress management activity regularly. Help them to identify sources of stress and give ideas on how to manage them. Relay your own internship experiences. Give encouragement. Refer them to counseling resources, if needed.

The following should be referred immediately to the Internship Director:

- Drug/alcohol abuse
- Theft
- Unethical behavior
- Excessive absenteeism or tardiness
- Any noteworthy violation of a facility and/or internship policy
- Any issues you are not able to resolve to your satisfaction

Be aware that significant problems should be discussed with the program director. It is the internship director's responsibility to direct and resolve major student problems. Early and ongoing discussions with the director can often resolve problems that might otherwise become too complex to correct.

Change - - - It Happens

Change is practically an everyday occurrence that some welcome and others reject. However, it is not necessarily the change that is rejected but the transition that comes with change. Transition occurs in the course of every attempt to change.

The change is external - a different philosophy or practice.

Transition is internal – a psychological reorientation that people have to go through before the change can work.

Transition takes longer because it requires that people undergo three separate processes:

1. Saying Goodbye
2. Shifting into Neutral
3. Moving Forward

Saying Goodbye

The first requirement is that people have to let go of the way things – and worse, the way that they themselves – used to be.

It isn't just a personal preference you are being asked to give up. You are asked to let go of the way of engaging or accomplishing a task or tasks that have seemed to be successful in the past.

Shifting Into Neutral

Even after people have let go of their old ways, they find themselves unable to begin the new changes. The neutral zone is that "in-between" state of uncertainty and fusion. The neutral zone is particularly difficult when careers and policy decisions and the very "rules of the game" have not been completely determined while leadership groups work out questions of power and decision-making.

Time in the neutral zone is not wasted, for that is where the creativity and energy of transition are found and the real transformation takes place.

It is important to get through the neutral zone with communication (rather than simple information) that emphasizes connections with the concern for the followers.

The "4 P's" of transition communications:

1. **Purpose:** Why we have to do this.
2. **Picture:** What it will look and feel like when we reach our goal.
3. **Plan:** Step-by-step, how will we get there.
4. **Part:** What you can (and need to) do to help move forward.

Moving Forward

Many people get through the first two phases, but then freeze when they face the third phase, new beginning. Moving forward requires people to begin behaving in a new way, and that can be disconcerting. It puts one's sense of competence and value at risk. People may

hang back during this phase of transition, waiting to see how others are going to handle the new beginning.

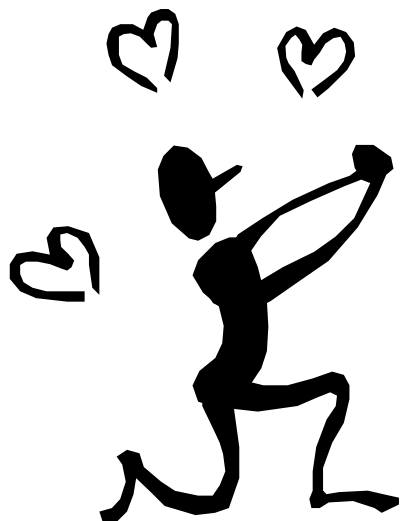
“Who Moved My Cheese” Philosophy:

- Change will happen. Anticipate it.
- Don’t hang onto old illusions.
- Be ready to adapt quickly to change by changing yourself.
- Enjoy change – savor the adventure of going off in a new direction.
- Be ready to change again – and remember, there’s always NEW CHEESE out there.

Preceptor Self-Evaluation

You may want to evaluate yourself at the end of students’ rotations. This could be accomplished by asking yourself, which parts of the rotation were the hardest to teach, or by asking students what parts of the rotation were most difficult.

Setting personal goals for you through assessment and problem solving will be helpful. From goal-setting move into goal getting by applying techniques to improve your preceptor performance. Identify those changes, which you view as possible. Do not forget to consider how the related transitions may impact your ability to change.



**We Love You
Preceptors,
Oh YES We Do!!**

Schematic for Dietetics Education

The following outlines the progression of the dietetics education sequence for the various programs:

Didactic Program in Dietetics

General Education: Required by Institution

- Courses that meet DPD Requirements may be applied to general education requirements, at the discretion of the institution

Professional Program

- Courses that incorporate the foundation knowledge and skills for entry to the supervised practice

Dietetic Internship Program

- Core professional competencies for entry-level dietetics practice
- Emphasis: One or more in addition to the core professional competencies

Concentration Options

Nutrition
Therapy

Community

Foodservice
Systems
Management

Business/
Entrepreneur

General

Program
Designed

There are six ascending levels of Bloom's Taxonomy*:

LEVEL	DESCRIPTION	ACTION/ ASSESSMENT VERBS	EXAMPLES OF QUESTIONS
Knowledge	The recognition or recall of specific pieces of information. Knowledge can be measured through the ability to literally restate or identify information.	<ul style="list-style-type: none"> • define • identify • label • list • match 	What is ____? Identify ____. Name _____.
Comprehension	The ability to demonstrate understanding of information by presenting it in another format. Comprehension can be measured by using own words to capture the intent or substance of a concept.	<ul style="list-style-type: none"> • describe • generalize • paraphrase • summarize • estimate 	Can you describe ____? What are the steps of ____?
Application	Uses knowledge in a situational context. Application can be measured by the accuracy with which learned concepts, procedures, or other knowledge are applied to solve problems, generate methods to find answers, or dramatize courses of action.	<ul style="list-style-type: none"> • chart • determine • implement • prepare • solve • use • develop 	Demonstrate how you ____? Calculate ____? How did you determine ____?
Analysis	Deconstructs an idea or other knowledge to identify its individual components and the relationships of these components to each other and the whole. Analysis can be measured by the ability to accurately identify the individual components and to explain the contribution of each to the whole.	<ul style="list-style-type: none"> • differentiate • distinguish • discriminate • compare • identify 	Contrast ____ with ____. How did you prioritize ____? How did you recognize ____?
Synthesis	Merges knowledge to create new knowledge. Synthesis can be measured by the ability of the learner to arrange knowledge into a unique, heretofore unknown, structure and to understand and demonstrate how and why these various elements work together.	<ul style="list-style-type: none"> • create • design • plan • organize • generate • write 	Design a new ____? What would you anticipate ____?
Evaluation	The application of a criteria or set of standards to conclude a value judgment. Evaluation may be measured by the generation of the criteria regarding the value, usefulness, quality, effectiveness, or some other standard, and/or applying that criteria to an idea, or other knowledge.	<ul style="list-style-type: none"> • appraise • critique • judge • weigh • evaluate • select 	In your opinion ____? Justify why you _____.

*Bloom B. S. (1956). *Taxonomy of Educational Objectives, Handbook I: The Cognitive Domain*. New York: David McKay Co Inc.

Here are some questions a preceptor might ask the intern based on the purpose of the questioning:

PURPOSE OF QUESTIONING	EXAMPLE
Assessing basic knowledge using open ended questioning	<ul style="list-style-type: none"> • What are your reactions to this case? • What aspects of this problem interested you the most? • What are the most important variables?
Diagnostic	<ul style="list-style-type: none"> • What is your analysis of the problem? • What conclusions did you draw from this data? • Why were you successful in the solving of this problem?
Information-seeking	<ul style="list-style-type: none"> • What was the patient's albumin? • What was the cost per patient per day?
Challenge	<ul style="list-style-type: none"> • Why is the lab value important to consider? • What evidence do you have to support your conclusions?
Action	<ul style="list-style-type: none"> • What needs to be done to achieve the nutritional outcomes you have envisioned for the client? • Who needs to be included in the decisions related to the current CQI project?
Questions on priorities	<ul style="list-style-type: none"> • Given the limited resources available to this community feeding center, who should be served first? Why? • You have identified 3 nutritional concerns to be addressed by the healthcare team. How would you prioritize these concerns?
Prediction	<ul style="list-style-type: none"> • How do you think the employees will react to this new policy? • When would you expect to see the benefit of the nutrition intervention in the ____ lab value?
Hypothetical	<ul style="list-style-type: none"> • If your facility uses a Foley catheter for ng tube feedings, what should you do? • If there is a severe blizzard in your community, how will you serve your patients and the community?
Extension	<ul style="list-style-type: none"> • What are the implications of using the "closed system" of enteral tube feedings vs. the "open system" for the elderly patient population?
Generalization	<ul style="list-style-type: none"> • Based on the financial information for this department, what are the opportunities and the threats? • Based on what you know about this specific drug, what do you know about other drugs in this class?

The Novice-Expert Continuum

Competency is the midpoint on a continuum of professional growth that normally expends over a given period of time, typically 10-12 years. This period of professional growth has been identified in a variety of disciplines, from dietetics to teaching, from mastery of a foreign language to playing a musical instrument.

Something to Consider:

- At what stage does the intern enter the supervised practice experience?
- At what stage should the intern be at the completion of the supervised practice experience?

"Competency represents that point where a learner has acquired enough understanding, skill, and appropriate values to continue professional development independently." Approximately one-third to one-half of becoming a professional occurs in the novice, beginner, and competency stages. The remaining stages develop over time at a somewhat decelerated rate.

There are several changes in performance from novice to expert. Not only do the expectations change for each state, but also the teaching and evaluation methods must change to accommodate the developing competence of the intern.

Novice	→	Beginner	→	Competent	→	Proficient	→	Expert
Rule Driven								Schema Driven
Rigid								Smooth and Flexible
Errors								Flawless
Extrinsic Rewards								Intrinsic Rewards
Performance Separate from Evaluation								Continuous Self-Evaluation
Teacher Responsibility								Performer's Responsibility
One Method								Several Choices

Interns enter supervised practice experiences as Beginners, and they should exit the experience as Competent Entry-Level Practitioners. It is important that the preceptor's expectations are comparable to the intern's abilities. It would be unrealistic to expect interns to enter a rotation or even exit a rotation with the same ability as the preceptor, even if the latter is a fairly new practitioner; he/she has been developing past the Competent stage from the first day of employment.

Chambers, Gilmore, O'Sullivan-Maillet, and Mitchell presented a discussion regarding competency-based education in dietetics and its relationship to the Novice Expert Continuum. Chambers acknowledged that the education methods should change as interns move along the Novice-Expert Continuum. As interns approach competency, the final education phase before entry-level practice, learning opportunities should include experiences of independent performance in a realistic setting- clinical, community, and/or food service. "What is learned?" and the "Method of learning?" should change, based upon the stage in the continuum.

	Novice	Beginner	Competent	Proficient	Expert
What is learned?	Facts & details	Some synthesis	Combined procedures	Broader experiences & workplace norms	Focus and mastery
Method of learning?	Didactic	Problem-based	Realistic settings & competency-based	Informal, on the job	Self-directed

Incorporating Evaluation

Another component in the education process is the evaluation method. It must be modified to appropriately assess the intern's progress at the various stages.

	Novice	Beginner	Competent	Proficient	Expert
Evaluation	Objective, demonstrations	Projects, simulation	Portfolio, work samples	Job related	Internal standards

Chamber noted that novices focus on the mastery of didactic content and simple laboratory procedures/skills. Thus, more traditional evaluation methods of multiple-choice testing and laboratory demonstrations are appropriate at the beginning of the dietetics education sequence. As interns' knowledge and skills develop and they become more like beginners, the education and evaluation methods should be modified. The inclusion of problem-based learning, which might stimulate the practice setting, begins to develop the interns' synthesis skills. However, it isn't until interns begin the supervised practice experience that competency as a practitioner can be determined. During this stage in dietetics education interns' learning experiences should include opportunities for facilitated, independent learning that are not prescriptive in nature.

Evaluation in the practice setting should differ from that used when the intern was a novice or beginner. Chambers suggest "authentic" evaluation which includes methods that would be expected in the workplace setting. It is suggested that a portfolio which provides the necessary evidence to document competency may be a more appropriate approach to evaluation in the supervised practice setting than simple objective methods such as homework assignments, tests, case studies, etc. which typically can only assess factual knowledge and limited synthesis. The evaluation method must complement what is to be learned, the method of learning, and most importantly the stage in the Novice-Expert Continuum that is desired.

As opposed to the formal education related to the didactic programs and supervised practice, the type of education associated with the lifelong learning stages of proficiency and expert is quite different. Chamber indicate that not only are education and evaluation often informal in nature, they also tend to focus on socialization, value formation, and the specifics of the workplace. These same elements parallel those of the mentor.

Evaluation, both formal and informal, becomes ongoing and a normal part of the daily work routine. Evaluation of the proficient or expert practitioner is directed toward how closely performance conforms to established standards of practice. As one approaches mastery, learning becomes self-managed and reliance upon the teacher, preceptor, or even mentor is no longer a necessity. Instead, a network of colleagues with whom ideas/concepts can be shared is more appropriate. Self-assessment of one's position and expectations for the future path of his/her career is now the directional force.

What is Entry-Level?

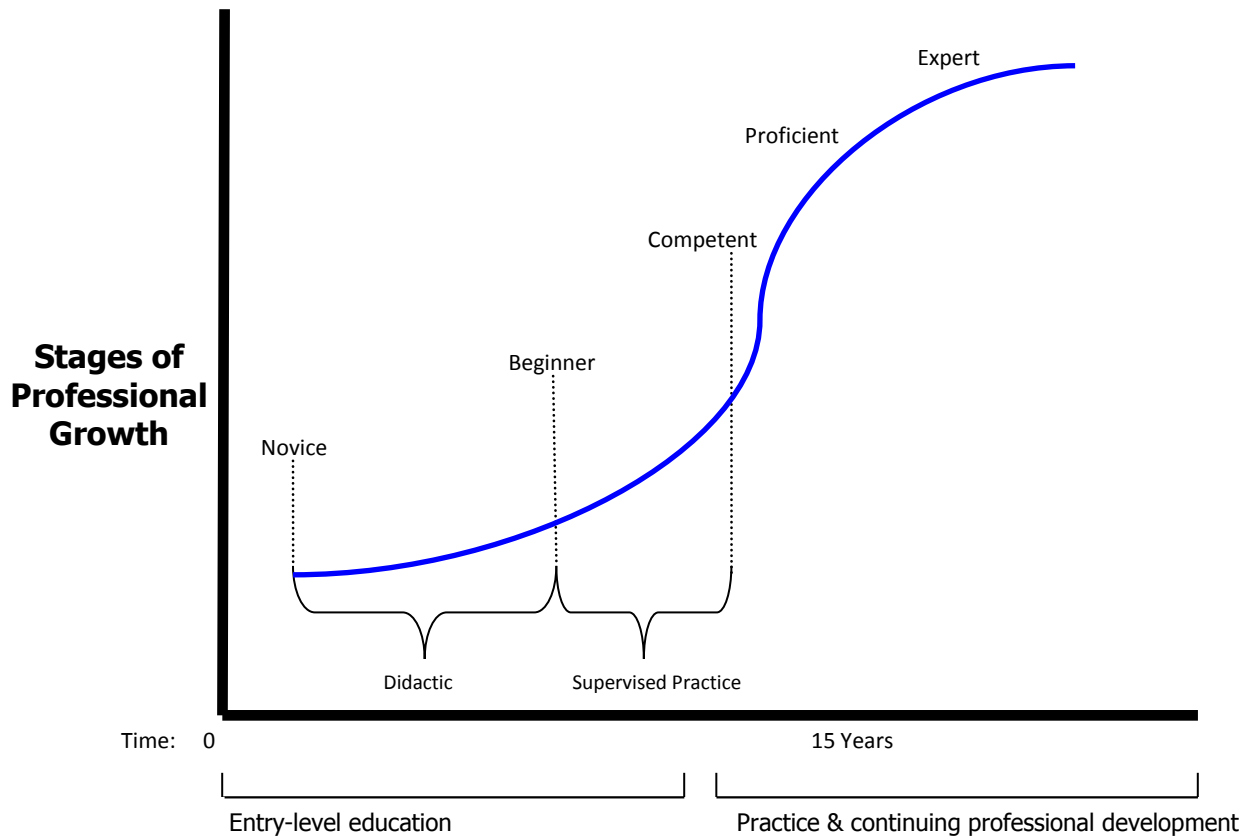
"Entry-level" is a term often used to describe interns who are nearing the completion of their formal education and entering the work force. However, how one interprets what truly constitutes entry-level competency may vary dramatically. Entry-level competency is not expected until the completion of the supervised practice component, but are preceptors expecting too much too soon?

Take a moment and remember back to the time when you could not read. Can you remember what it was like to develop your skills from the simple "Dick and Jane" books to a complex journal article or novel? Most individuals cannot remember such a time, or even identify when or how their skills improved. Expecting interns to be able to work as competently or efficiently as a preceptor is similar to asking a child in second grade to read as well as a child in the eighth grade. Both the second grader and the eighth grader have passed the novice stage, but their capabilities as a reader remain different.

Do you get frustrated that your intern is not as proficient as you? Are your expectations too high, or are they too low? It is just as dangerous to underestimate the Learning Stage of your intern, as it is to overestimate his or her abilities. Assuming that your intern is a Novice may disrupt the learning process and conflict with your ability to efficiently advance him/her along the continuum to the Competent stage.

Chambers, D., Gilmore, C., Maillet, J., & Mitchell, B. (1996). Another look at competency-based education in dietetics. *Journal of the American Dietetic Association*, 96, 614-617.

Model for Lifelong Learning



This model highlights the principles of competency-based education. Professional growth and mastery of a discipline begin with the **novice** who cannot perform, but who with education and experience, achieves **competence** as an entry-level practitioner. The practitioner continues the lifelong learning process that allows him or her to master the discipline and become **proficient** and then **expert**.